

and in publishing their results, would render the Institution less efficient for the fulfilment of the trusts under which it was founded,—and that the advantages accruing from the formation of a public library would in no wise compensate the loss thus incurred.

It was further ordered that a copy of the foregoing resolutions be attested by the Secretary of the Society, and forwarded to the Secretary of the Smithsonian Institution.

*Stated Meeting, March 16.*

Present, twelve members.

Prof. FRAZER, Vice-President, in the Chair.

A letter was read from Joseph Henry, Secretary of the Smithsonian Institution, dated Washington, March 8, 1855, returning thanks, on behalf of the Board of Regents, for the expression of approbation on the part of this Society, of the course they have pursued, as indicated by the resolutions adopted by the Society at last meeting.

The following donations were announced:—

FOR THE LIBRARY.

Monthly Notices of the Royal Astronomical Society. Vol. XV. No.

3. Jan. 12, 1855. London. 8vo.—*From the Society.*

An Essay to prove the Contagious Character of Malignant Cholera, with brief Instructions for its Prevention and Cure. By Bernard M. Byrne, M.D., Surgeon U. S. Army. Philadelphia, 1855. 8vo.—*From the Author.*

Eighteenth, Nineteenth and Twentieth Annual Reports of the Trustees of the Philadelphia Gas Works, to the Select and Common Councils of the City of Philadelphia, 1853, 1854, 1855:—with two Pamphlets containing the Proceedings in the Supreme Court of Pennsylvania, for the Eastern District, July Term, 1854, in relation to the Philadelphia Gas Works. Philadelphia. 8vo.—*From John C. Cresson, Esq.*

Rectification of Mr. T. A. Conrad's "Synopsis of the Family of Naiades of North America;" published in the Proceedings of the

- Academy of Natural Sciences of Philadelphia, February, 1853.  
By Isaac Lea. Philadelphia, 1854. 8vo.—*From the Author.*
- Report of the State Librarian to the Legislature of Pennsylvania,  
with a Catalogue of Books for the year 1854. Harrisburg. 8vo.—  
*From Rev. W. R. De Witt, State Librarian.*
- The Medical News and Library. Vol. XIII. No. 147. March, 1855.  
Philadelphia. 8vo.—*From Blanchard & Lea.*
- Semi-Centennial Celebration: Fiftieth Anniversary of the Founding  
of the New York Historical Society. Monday, Nov. 20, 1854.  
New York. 8vo.—*From the Society.*
- Seventh Annual Report of the President and Directors to the Stock-  
holders of the Ohio and Pennsylvania Rail Road Company.  
Pittsburg, Jan. 1855.—*From S. W. Roberts, Chief Engineer.*

Mr. Peale made a communication, in continuation of his remarks at a former meeting, on the subject of Coinage and metallic currency.

At this particular period, which may be considered an epoch in the monetary affairs of our country, it is very desirable that some fixed principle should be adopted in the coinage, with reference to the proportionate number of pieces of different denominations, if any such principle exists. At all events there can be no impropriety in endeavouring to throw such light as we possess into what is now an obscure atmosphere, in the hope that a ray may fall upon a path that will lead us towards our destination; which is, without doubt, that of supplying a currency of solid precious metals, the only safe basis of financial prosperity.

Congress has wisely, at its last session, done away the folly that previously existed, of a double legal-tender, at fixed ratios of gold and silver, by demonetizing the latter, except to the limited extent of five dollars: thus rendering the first the currency of the country, and adapting the latter, protected by a moderate seniorage, to its true object and destination, as the change and means of payment for all the small transactions of ordinary life.

Our country has now, there is little doubt, an abundance of gold, both in coin, bars, and other forms of bullion, for all desirable purposes of a solid basis, including that of a legitimate metallic currency, and the supply is still on the increase. Silver seems to present no difficulty, as to a supply for the lesser purposes, already noticed, al-

though no special means have yet been taken to add to it, but which can be done readily when the necessity shall arise.

Before proceeding with the immediate subject under consideration, a few words will be devoted to the coinage of small gold pieces.

Peculiar circumstances, whose influence has been powerful, but, it is hoped, transient, have made it necessary to coin large quantities of gold dollars.

A dispassionate view of this coin and its history will, in a candid and just spirit, be appreciated.

It is not a recent invention. Historical records, and our cabinets, show that pieces of approximate value, have been issued by almost all governments at some period of their career, and that they are now almost entirely abandoned. The reasons are obvious, but may be briefly stated.

The piece is too small for convenient handling and inspection in proportion to its value.

It is too liable and easy of counterfeit imitation in consequence of its light weight and diminutive size; and too difficult of detection, when even indifferently counterfeited, because not appreciable by the *sensible tests* (feeling of weight, the sight, &c.), and, finally, it will be unnecessary, when a sufficient supply of *silver change* shall be spread abroad among the community.

The quarter eagle, on the contrary, is of sufficient value and size to authorize sufficient care in its reception and payment; it is entirely appreciable by the sensible tests, and admits of easy detection when fraudulent attempts have been made at imitation or alteration.

The half and quarter eagle have their places in our monetary system, for certain natural reasons, which may be illustrated thus. It is easy and simple to divide and add, by halving and doubling, &c.; hence the hold that the Spanish currency of reals has upon our affections (to say nothing of the habit of its use), whereas a decimal system, such as our money of account and currency, requires *some* education.

The *pons asinorum* being once passed, however, in the use of a decimal system, its advantages and facilities are without bounds. Why, or how, we should tolerate, for one hour, the stupid and false nomenclature of shillings and sixpences, so common in some parts of the Union, is past comprehension or explanation, and will not be attempted.

The quarter eagle, and the three dollar gold-pieces, authorized by the late law, are incongruous, being too nearly of the same value to



The half cent, although a legalized coin, need not be included in this Table, because rarely used in money of account, and but few are struck for occasional purposes only.

The following Table gives the result of the above proportions:—

	No. of pieces.	Value.	Ratio per ct.
Half dollars, . . . . .	2,000	\$1000	18.5
Quarter dollars. Two to one half dollar, . .	4,000	1000	18.5
Dimes. Two and one half to one quarter dollar, .	8,000	800	14.9
Half Dimes. Two to one dime, and one for each quarter of a dollar, . . . . .	20,000	1000	18.5
Three cents. One, and two cents, for a half dime, .	30,000	600	11.1
Cents. Three for one 3 cent piece, and two for each half dime, . . . . .	100,000	1000	18.5

The proportions exhibited in the Table above are the exact equivalent values of the smaller to the larger pieces; but as some portion is usually retained in payment for purchases, it is evident that an indefinite excess of fractional pieces would exist. It is also certain, that the operations of trade will draw some denominations of coin to one geographical point, and thus deprive another of its due proportion. This condition of the circulation will be counteracted, in all probability, by the fact that the larger pieces of coin are those which are usually *hoarded*, and are thereby withdrawn from circulation, no doubt to a large extent, and thus adding to the excess of the smaller denominations.

Some change will be developed in their proportionate ratios, by the loss and destruction of the pieces of the smallest denominations, in consequence of their size and small value. Time and the demands of commerce or trade will show when and to what extent this contingency will require to be met, which can be done by occasional coinages in excess of the particular pieces in demand.

The operations of the silversmiths will be checked to an indefinite extent in their depredations upon our coin, by the seniorage, but it is to be feared that the present premium on silver is too high to render it as effectual as is to be desired. If a further augmentation takes place, of equal value, our law and our operations will be alike in vain.

The following Table exhibits the coinage at the Mint of the United States, Philadelphia, since the passage of the laws creating the three cent pieces, and the seniorage upon the silver coin.

Denominations.	No. of pieces.	Value.	Ratio.
Half dollars,	3,004,008	\$1,502,004	20.1
Quarter dollars,	14,942,020	3,735,505	48.7
Dimes,	8,500,010	850,001	11.1
Half dimes,	8,250,020	412,501	5.4
Three cents,	35,510,900	1,065,327	14.0
Cents,	5,701,300	57,013	0.7
Total,	75,988,258	\$7,662,351	100.0

From the invaluable book of Messrs. Eckfeldt and Dubois, the following comparative Tables have been abstracted. In illustration of the subject, they present at a glance the result of the mint operations of five of the great nations of Europe, during long periods of time.

*England, 24 years.*

Denominations.	No. of pieces.	Value.	Ratio.
Crowns,	1,849,905	£ 462,476	4.1
Half crowns,	31,438,434	3,929,804	35.3
Shillings,	101,645,280	5,082,264	45.7
Sixpences,	58,324,595	1,458,115	13.1
Fourpences,	10,371,058	172,850	1.6
3, 2 and one pennies (not calculated),		2,190	
		£ 11,105,509	99.8

*France, 37 years.*

Denominations.	No. of pieces.	Value.	Ratio.
Five francs,	645,209,090	Francs, 3,231,045,450	96.3
Two francs,	28,528,804	57,057,608	1.7
One franc,	50,359,424	50,359,424	1.5
Half franc,	45,068,176	22,534,088	0.6
Quarter franc,	14,461,928	3,615,482	0.1
		3,364,612,052	100.2

*Spain, 20 years.*

Denominations.	No. of pieces.	Value.	Ratio.
Dollars,	580,183	580,183	28.5
Half dollars,	119,036	59,518	2.9
Pistareens,		1,348,926	66.3
Half pistareens,		36,785	1.8
Reals,		7,472	0.3
		2,032,884	99.8

*Prussia, 20 years.*

Denominations.	No. of pieces.	Value.	Ratio.
Two thalers,	975,045	Thalers, 1,950,090	5.
Thalers,	28,303,346	28,303,346	72.
$\frac{1}{2}$ thaler,	29,124,630	4,854,105	12.1
Billon pieces,		3,147,152	8.
Copper,		752,273	1.9
		<hr/>	<hr/>
		39,006,966	99.

*Austria, 15 years.*

Denominations.	No. of pieces.	Value.	Ratio.
Rix dollars (2 florins),	13,594,857	Florins, 27,189,714	10.4
Half dollars or florins (none.)			
Twenty kreutzer pieces,	101,163,998	50,581,999	19.3
Ten kreutzer,	3,998,600	974,650	0.4
Five kreutzer,	5,973,424	746,678	0.3
Three kreutzer,	14,799,070	1,109,931	0.4
Copper (26 years),		180,918,286	69.1
		<hr/>	<hr/>
		261,521,258	99.9

The following is a statement of the amount paid to customers at the mint, since the commencement of the coinage under the new law, creating a seniorage on the silver currency, with the denominations and ratio per cent. on the value, up to January 1, 1854.

Half dollar,	\$ 1,593,854	Ratio per ct. 25.1
Quarter dollar,	3,609,955	56.8
Dime,	704,601	11.1
Half dime,	372,951	6.
Cents for the year,	66,411	1.
	<hr/>	<hr/>
	\$6,347,772	100.

As an enormous amount of 3 cent pieces was coined and issued immediately antecedent to the above issue, and as the mint has been occupied for years upon copper, it may be supposed that the demands for these coins have been supplied.

A new ratio, including the whole of the 3 cents, and 5 years of the copper coinage, will give the following result.



Half dollars,	\$1,593,854	Rates, 20.8
Quarter dollars,	3,609,955	47.2
Dimes,	704,601	9.2
Half dimes,	372,951	4.8
3 cents. The whole 2 years,	1,065,327	14.0
1 cent. Five years,	303,217	4.0
	<hr/> \$7,649,905	<hr/> 100.

The following Table embraces the whole coinage, under the new laws, to December 31, 1853.

Dollar,	\$46,110	Ratio per ct. 0.5
Half dollar,	1,766,354	20.4
Quarter dollar,	3,813,555	44.1
Dime,	1,217,301	14.1
Half dime,	667,251	7.6
Three cent (total),	1,065,327	12.3
Cent (one year),	66,411	0.8
Half cent,	648	.0
	<hr/> \$8,642,957	<hr/> 99.8

The above Tables appear to support, as satisfactorily as could be expected, the theory advanced in previous parts of this paper. The discrepancies are noted, and accounted for as follows:

The half dollars have been in demand, and coined slightly in excess, because there are a considerable number of Spanish American quarters in circulation.

The quarter dollars have been likewise coined in excess, because an immense number of the old Spanish American reals ( $12\frac{1}{2}$  cent pieces) are still in circulation; and thus causing a less or reduced demand for dimes.

The half dimes fall very far short of the theoretic proportion, because large numbers of the Spanish half reals ( $6\frac{1}{4}$  cent pieces) are still in circulation, and, also, because the 3 cent pieces are considerably in excess, and thus serving instead of the half dime.

The largest deficiency is in the cent coinage. This is to be expected, because this coinage has been continued through a long series of years, and the yearly coinage may be only sufficient to maintain the necessary supply or stock in circulation.

The results which have been thus far developed by this examination, appear to support the theory; at least there does not appear to be any discrepancy in the demands at the paying counter of the mint, with the theory, that is not accounted for by the existence of foreign



coin of small denominations now in circulation; which it is difficult to withdraw because they pass by tale for much more than their intrinsic value—a practical seniorage, from which there is no benefit to any body, and much embarrassment in the phraseology of our money, especially to foreigners.

*Stated Meeting, April 6.*

Present, twelve members.

Dr. DUNGLISON, Vice-President, in the Chair.

Letters were read:—

From Don P. de Angelis, dated Montevideo, Dec. 1, 1854, and from Dr. N. B. Shurtleff, dated Boston, March 14, 1855, announcing donations for the library: and—

From the Royal Academy of Sciences, at Turin, dated Nov. 24, 1854, returning thanks for Transactions and Proceedings of this Society.

The following donations were announced:—

FOR THE LIBRARY.

Proceedings of the Boston Society of Natural History. Vol. V. No.

7, 8, 9. Feb. March, 1855. Boston. 8vo.—*From the Society.*

Proceedings of the Academy of Natural Sciences of Philadelphia.

Vol. VIII. No. 7. Philadelphia. 8vo.—*From the Academy.*

The African Repository. Vol. XIII. No. 3. March, 1855. Washington. 8vo.—*From the American Colonization Society.*

Journal of the Franklin Institute. 3d Series. Vol. XXIX. No. 3.

March, 1855. Philadelphia. 8vo.—*From the Institute.*

Records of the Governor and Company of Massachusetts Bay in

New England. Printed by order of the Legislature. Edited by N.

B. Shurtleff, M.D., &c. &c. Vol. III. 1644–1657. Vol. IV. Part

1. 1650–1660. Boston, 1854. 4to.—*From the Editor.*

Twelfth Report to the Legislature of Massachusetts, relating to the

Registry and Returns of Births, Marriages and Deaths in the

Commonwealth, for the year ending Dec. 31, 1853. By Ephraim

N. Wright, Secretary of the Commonwealth. Boston, 1854.

8vo.—*From N. B. Shurtleff, M.D.*

Twenty-second Annual Report of the Managers of the Pennsylvania

Institution for the Instruction of the Blind; together with Dr.